

## DWR Short-Term Power Purchases

I, Susan Lee, declare as follows:

1. I am the Manager of Trading at the California Energy Resources Scheduling ("CERS") division of the California Department of Water Resources ("DWR") since April 16, 2001. I am responsible for managing and optimizing CERS' power contract portfolio, coordinating with the investor-owned utilities ("IOUs") and the California Independent System Operator Corporation ("CAISO") with operational issues, and supervising the trading activities related to short-term power procurement necessary to meet the net short requirements of the IOUs in the State of California. Prior to joining CERS, I was employed by Miec Inc., where I was involved with strategic planning, market analysis and trading activities. I have personal knowledge of the facts stated herein and, if called, would testify competently thereto.
2. I am responsible for (i) assessing the net short requirement of each IOU, meaning the difference between retained generation of each IOU and its load requirement, (ii) assessing the available energy quantity from existing DWR long-term contracts to meet the net short requirements, including performing economic dispatch analysis of peaking and dispatchable contracts, (iii) determining the residual net short requirements ("residual net short") of the IOUs, meaning the difference between the net short requirement and the energy quantity available from existing DWR long-term contracts, (iv) directing and supervising the trades necessary to procure residual net short requirements in short-term energy markets, and (v) coordinating with the CERS fuels team.
3. The net short forecasts from the IOUs are the most fundamental data upon which CERS procurement plans are based. These forecasts allow CERS to determine whether the available DWR long-term contract energy quantities are sufficient to meet the net short requirements of the IOUs. The residual net short requirement, consisting of the net short requirement less the quantity available from DWR long-term contracts, is satisfied through short-term energy purchases made under my supervision.
4. The IOUs provide various different forecasts of the net short requirement. The IOUs each provide an annual or long-term net short forecast, and a rolling seven-day forecast which is provided to CERS on a daily basis and is updated twice each day. They also provide an update of the residual net short for the current day.
5. In order to assure a reliable supply, minimize energy costs and limit exposure to the spot market<sup>1</sup> or to limit exposure to day-ahead and real time prices, CERS has purchased and continues to purchase energy in the short-term forward markets to supplement the available energy supply under the DWR long-term contracts. A diversified portfolio of different types of contracts including short-term forward purchases such as balance of the month, monthly and quarterly purchases protects against price spikes in the spot

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<sup>1</sup> Spot market refers to transactions in the Day-Ahead, Hour-Ahead, and Real-Time markets.

market. These transactions also assist in securing energy since there is no guarantee that all needed energy will be available in the spot market. The long-range forecasts are used to assess the need for short-term forward energy, which includes balance of the month, monthly and quarterly transactions. The seven-day rolling forecasts are used to determine the need for day-ahead transactions, and the current day net short forecasts are used for hour-ahead transactions. Any remaining unmet residual net short requirement was purchased in the CAISO dispatched BEEP (Balancing Energy and Ex Post Pricing) stack. Based on the CAISO requests as to quantity and delivery location, CERS has also entered into real-time Out-of-Market ("OOM") transactions for grid reliability purposes.

6. In the early part of 2001, monthly and quarterly short-term transactions available to CERS were limited, because of suppliers' unwillingness to sell to CERS in the forward market due to credit concerns. Counterparties remained concerned about non-payment for energy previously sold to the CAISO and the California Power Exchange ("PX"), and prices for short-term transactions reached extraordinarily high levels. CERS did not have any long-term contracts in place at that time and was faced with procuring almost all of the IOUs' net short requirements in the day-ahead and real-time procurements initially. (Day-ahead trading activity takes place daily Monday through Friday<sup>2</sup> for next day deliveries. Real-time trading occurs 24 hours a day, seven days a week). It was common for the net short to be unmet by the day-ahead market transactions, because the market was not liquid enough for several thousands of megawatts to be purchased and because some counterparties perceived CERS to be a credit risk. As a result, the remaining unmet energy requirements were carried over to the hour-ahead market and the real-time market through the CAISO's BEEP stack dispatched energy and, at CAISO's request, a large portion was met by OOM transactions entered into by CERS.
7. The CAISO is responsible for meeting real-time needs. The CAISO achieves this through the BEEP stack or the imbalance energy market. To the extent that the real-time energy requirement cannot be met through the imbalance market, the CAISO enters into OOM transactions. In part because of the creditworthiness issues of the IOUs, and, in turn, the inability of the CAISO to pay its suppliers, CERS undertook during the period January 17, 2001 through December 7, 2001 to enter into OOM transactions upon request from the CAISO for grid reliability purposes. OOM transactions were necessary to meet reliability requirements. The CAISO determined that the BEEP stack was insufficient to meet real-time needs and that some bids in the BEEP stack included "proxy bids" (bids created by the CAISO for a generator's uncommitted capacity), infeasible bids (bids which exceed a unit's ramp rate), or bids from bidders who simply did not respond when dispatched by the CAISO. The CAISO had expressed these concerns at the FERC conference held at the CAISO on September 24, 2001, and has also generally stated these issues in its answer to the complaint filed in *Reliant Energy Power Generation, Inc., et al. v. The California Independent System Operator Corporation*, 97 FERC ¶ 61, 215 (November 20, 2001).

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<sup>2</sup>Deliveries for Saturday are traded on Thursday and deliveries for Sunday and Monday are traded on Friday.

8. Since the CAISO was unable to meet reliability requirements through the BEEP stack, extensive OOM requests were made by the CAISO to CERS during the first half of 2001. The CAISO typically made OOM requests to CERS 30-70 minutes prior to the start of the dispatch hour and specified the quantity and delivery location. The volume of the OOM requests varied, but was as much as 5,000 MWs for one single hour at times. Given the time constraints, limited suppliers, and the large real-time OOM volume necessary to prevent blackouts, any opportunity for CERS to shop for price was limited. Nevertheless, CERS did shop when it could, and made every reasonable effort to provide reliable energy at the least cost. The bilateral transactions that CERS entered into from the short-term market were transacted at the then prevailing market price. Market prices are reflected by current offers and bids in the market. CERS determined prices to be "reasonable" through the use of various trading platforms, in addition to canvassing the market for offers from various suppliers.
9. As DWR entered into long-term contracts and energy deliveries commenced under these contracts, an increasing amount of net short requirement was satisfied through energy deliveries under DWR long-term contracts. Below is a summary of the increased percentages of the long-term contracts through 2001.
10. CERS continued to enter into short-term forward market transactions to meet the residual net short requirements of the IOUs. By June 30, 2001, approximately 28% of the net short requirement was being met from DWR long-term contracts. By January 1, 2002, approximately 64% of the net short requirement was satisfied by DWR long-term contracts, further reducing CERS' reliance on procurements from the short-term forward market. See the following table:

**PERCENTAGES BY TOTAL PURCHASES**

	1/01	2/01	3/01	4/01	5/01	6/01	7/01	8/01	9/01	10/01	11/01	12/01
<b>LONG TERM<sub>1</sub></b>	0%	11%	16%	20%	18%	28%	37%	43%	46%	46%	52%	48%
<b>BOM/MONTHLY/QUARTERLY</b>	27%	5%	23%	28%	30%	38%	42%	33%	24%	29%	22%	22%
<b>DAY AHEAD/HOUR AHEAD</b>	42%	47%	31%	24%	28%	22%	11%	15%	23%	21%	23%	30%
<b>OOM</b>	31%	37%	30%	28%	24%	12%	10%	9%	7%	4%	3%	0%

<sub>1</sub> Includes Block Forward Contracts (Contract term varies).

<sub>2</sub> Includes Balance of the Month, Monthly, and Quarterly purchases.

11. In January, 2001, CERS established a trading room for short-term, day-ahead, hour-ahead, and real-time trading<sup>3</sup>. CERS immediately started to use three different electronic trading services to facilitate trading activity and to receive market price information, Bloomberg, Automated Power Exchange (APX), and EnronOnline (EOL). These trading platforms assisted CERS in comparing different offers in the market and in

<sup>3</sup> Real-time and hour-ahead trading took place at the CAISO facility from January 2001 through September 1, 2001.

procuring energy at the least cost. Some of these platforms also provided market news, information on the gas market, and information on other fundamental drivers that impact price and availability. CERS also used voice broker services, such as APB, Prebon, and Natsource. CERS contracted with Natsource in May 2001 for additional market and pricing information. On a daily basis, Natsource provides a forward price curve, which indicates the price of energy in the forward market extending out to five years. This price curve is used for pricing information for energy in the forward market.

12. CERS initially employed approximately twelve traders in total, nine real-time traders and three day-ahead traders. Typically, CERS traders determine the volume of energy, based on the IOU forecasts, that needs to be procured in the market, and then view the various trading platforms to review current offers in the market. A trader may also call suppliers directly to solicit offers. Similarly, a trader may also call brokers for price quotes. This process of price discovery allows the trader to get the best possible price from current offers in the market. If an offer is high or above the apparent market (represented by visible bids and offers), the trader may not purchase the energy, depending on market and supply conditions, and call other suppliers for energy. In general, CERS traders used typical market trading skills and techniques to seek competitive purchases.
13. CERS had also participated in an "auction" through Bloomberg to ensure competitive offers from market participants for short-term monthly transactions. In this auction, CERS made a public announcement to market participants to solicit energy offers. CERS set criteria on price and other terms for this auction based on the forward energy price curve and the net short requirement.
14. In addition to relying on the forecasts and updates of forecasts from each IOU, CERS traders also participate in a daily CERS/IOU conference call to coordinate scheduling of resources with the IOUs. Based on current pricing information, an IOU may shift some of its discretionary resources to optimize resources and to assist in meeting the net short at the least cost. DWR system analysts have also performed analysis for optimizing hydro dispatch. Through this optimization, CERS is able to purchase additional standard products, instead of "shaped" products, which typically come at a higher cost since there is generally a premium attached with non-standard peaking products. Similarly, if CERS is in a long position or has excess energy, CERS will coordinate with the IOU to determine the "least cost" alternative based on current market prices and market conditions.
15. CERS personnel also monitor and analyze the data from the IOUs and prepare recommendations for short-term CERS transactions based on IOU's resource and load forecast, hydro scenarios, conservation, direct access, market price forecasts and other market drivers. Procurement in the short-term forward market is based on these studies and findings. These analytical summaries and recommendations are updated on a regular basis as information is received from the IOUs. These analyses are performed on a regular basis, both daily and monthly, on the dispatchable DWR long-term contracts to

determine least cost dispatch between the dispatchable DWR long-term contracts and market purchases.

16. I also participate in daily operational meetings with the Deputy Director and the CERS Real-Time Supervisor. The daily meeting includes discussions on operational issues, a summary of trading activities from the previous day, and the outlook for the current day. The Deputy Director is also provided with various daily reports on all trading transactions. These reports include trading volumes and the highest, lowest and average sales and purchase prices. These daily meeting serve multiple purposes including i) a quality check and review of trading activity; ii) discussion on policy and procedures, as necessary; iii) planning and trading strategies; and iv) operational issues. The overall CERS objective in these discussions is to provide the net short in a reliable manner at the lowest cost possible under the then existing circumstances.
17. I also participate in weekly operational meetings to discuss risk management issues and to determine optimal purchasing amounts and strategies. The topics have included (i) a discussion of the remaining need for various load and resource scenarios; (ii) evaluation of the economic trade-offs of alternative purchasing strategies; and (iii) forecast utilization of dispatchable contracts. Recommendations for optimal or target purchases amounts and prices in the short-term market are determined and identified at these meetings. As an example, purchases of the block or standard products and selling the long hours may be more economical than purchasing "shaped" or non-standard product that comes at a premium. The analysis will therefore recommend the optimal purchase volume that should be purchased as block or standard products. Risk Management also considers price volatility in the market and factors this into price targets and procurement strategy. Economic analysis is also prepared for non-standard and capacity offers. Short-term forward market purchases are transacted in accordance with price targets and limits that are discussed in operational weekly meetings. All short-term transactions are reported to Risk Management and to various CERS analysts.
18. CERS traders operate under a price limitation, which is the lower of the current market price or the applicable FERC price cap. From January 17, 2001 through June 19, 2001, CERS relied on the lowest current offers in the market through the use of the various trading platforms, brokers and price discovery. On June 19, 2001, the Federal Energy Regulatory Commission implemented a price cap of \$91.87. Since June, 2001 to the present time, the average market spot prices have averaged consistently lower than the price cap. CERS' average short-term forward market price has been within the market index for standard products. In accordance with the Short-Term Energy Procurement Limits document, which was approved on August 2, 2001, CERS transacts at the current market price, not exceeding the market price cap<sup>4</sup>. This document was updated later in the year to include modified transaction authorizations and limits. Also included in this

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<sup>4</sup> Since the June 19, 2001 price cap came into effect, there are a few transactions that were above the price cap. Most recently, on July 10, 2002, CERS entered into an OOM transaction above the cap. Generally, transactions above the cap are under extraordinary circumstances. For instance, this recent transaction was during a Stage 2 Emergency. The transactions above the cap are subject to review and suppliers must justify their costs.

document are CERS' objectives, such as providing stable low cost energy. The objectives are measured periodically to measure and evaluate short-term transactions.

19. I also attend weekly Contracts Committee meetings where analyses on the remaining net short requirement are presented and also where recommendations are made. Any short-term forward market transactions above the defined limits in the Short-Term Energy Procurement Limits document are presented to the Contracts Committee for approval. Prior to approval, the Committee will review the contract and may require changes in contract term(s), or request for additional analysis.

I declare under penalty of perjury that the forgoing is true and correct. Executed on August 9, 2002 at Sacramento, California.

  
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Susan Lee